CLAIMS

1. A photometer comprising:

an wavelength-band-component extracting means that extracts a component of a predetermined wavelength band from incident light;

a branching means that branches the predetermined wavelength band component into a first direction and a second direction;

an optical connecting means that comprises a first input terminal, a second input terminal, a first output terminal, and a second output terminal, said first input terminal being connected to one end of an device under test, and said second input terminal being connected to a side in the first direction of said branching means;

an optical amplifying means that receives light from said second output terminal, and outputs amplified light, which is obtained by amplifying the light, to an incident light receiving section of said wavelength-band-component extracting means; and

a photodetecting means that is connected to said first output terminal, and detects light, wherein:

the other end of the device under test is connected to a side in the second direction of said branching means; and

said optical connecting means (1) connects between said first input terminal and said first output terminal, and between said second input terminal and said second output terminal, or (2) connects between said first input terminal and said second output terminal, and between said second input terminal and said first output terminal.

2. The photometer according to claim 1, wherein said optical amplifying means is a fiber amplifier or a semiconductor optical amplifier.

3. The photometer according to claim 1, wherein said predetermine wavelength band of said wavelength-band-component extracting means is variable.

4. The photometer according to claim 1, wherein the device under test is an optical fiber or a device which transmits light beam.

5. The photometer according to claim 1, wherein:

there exist a plurality of said wavelength-band-component extracting means respectively having a predetermined wavelength band to be extracted differing from each other; and

there exist a plurality of said photodetecting means respectively having a wavelength band of light to be detected corresponding to the predetermined wavelength band.